



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/713,121	11/15/2000	William D. Nations	PA-Y0014	3359

7590 11/13/2002

Joyce Kosinski  
Patent Administrator  
Loral Space and Communications  
655 Deep Valley Drive Suite 303  
Rolling Hills Estates, CA 90274

EXAMINER

GELIN, JEAN ALLAND

ART UNIT PAPER NUMBER

2681

DATE MAILED: 11/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

11

## Office Action Summary

Application No.

09/713,121

Applicant(s)

NATIONS ET AL.

Examiner

Jean A Gelin

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11-17, 19-25 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-17, 19-22 and 25-31 is/are rejected.
- 7) ☒ Claim(s) 23, 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This is in response to the Applicant's amendments and arguments received February 20, 2003 in which claims 1, 11, 25, and 29 have been amended, claims 30 and 31 have been added. Claims 1-8, 10-17, 19-25, and 27-31 are currently pending.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1, 10, 11, 21, 22, 25, and 27-31 are rejected under 35 U.S.C. 102(a) as being anticipated by Humphrey (2002/0129116 A1).

Regarding claims 1, and 25, Humphrey teaches a data transmission system comprising: a terrestrial communication link (fig. 2, item 20 communicates with item 25); a two-way communication link (i.e., for the providers or clients to transmit and receive data, page 4, sections 0043-0044) comprising at least one satellite (24); at least one user terminal (i.e., client 25) having two-way communication with the two-way communication, and comprising a cache for selectively caching data broadcast by way of the satellite of the two-way communication link (i.e., client can transmit via transmitter 23 and receive via receiver 26 and include cache memory 28 to store requested program, page 4, sections 0043-0046); a software which retrieves information requested by way of the user terminal and information related to the requested

Art Unit: 2681

information (i.e., typically the requested information is received if appropriate application is client unit to receive it, page 4, sections 0046-0047); and at least one gateway (broadcasting system 20) having access to data and having two-way communication with the two way communication link (page 4, sections 0046-0047).

Regarding claims 11, 28, and 29, Humphrey discloses a method of communication data comprising the steps of providing one or more orbiting satellites (24) that comprise a two-way communication link (i.e., satellite 24 transmits and receives data via 20 and 25); providing at least one user terminal (i.e., client or customer) having two-way communication with the two-way communication, and comprising a cache for selectively caching data broadcast by way of the satellite of the two-way communication link (i.e., client can transmit via transmitter 23 and receive via receiver 26 and include cache memory 28 to store requested program, page 4, sections 0043-0046); a software which retrieves information requested by way of the user terminal and information related to the requested information (i.e., typically the requested information is received if appropriate application is client unit to receive it, page 4, sections 0046-0047); and at least one gateway (broadcasting system 20) having access to data and having two-way communication with the two way communication link (page 4, sections 0046-0047); generating requests for data at the at least one user terminal (i.e., customer sends a request, page 4, section 0046); transmitting the requests for data from the at least one user terminal by way of the two-way communication link to the at least one gateway (page 4, section 0046); obtaining the requested data at the at least one gateway (i.e., master cache obtains the requested

Art Unit: 2681

information, page 4, section 0047); and transmitting the requested data from the at least one gateway to the at least one user terminal by way of the two-way communication link (page 4, sections 0046-0047).

Regarding claim 21, Humphrey teaches obtaining the requested data along with data related to the requested data at the at least one gateway, and transmitting the requested and related data from the at least one gateway to the at least one user terminal by way of the two-way communication link (page 4, sections 0044-0041 and 0046-0047).

Regarding claim 22, Humphrey teaches storing the requested and related information at the Internet broadcasting system (page 4, sections 0043 and 0047).

Regarding claims 10, 27, Humphrey teaches the gateway (or Internet broadcasting system) comprises a cache (page 4, section 0046).

Regarding claims 30-31, Humphrey teaches the cache has a size on the order of 30 gigabytes or multi-gigabyte hard disk (i.e., inherently present in aggregating cache community size, page 3, section 0028).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2681

5. Claims 2-8, 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humphrey (2002/0129116 A1) in view of Yee et al. (US 6,151,497).

Regarding claims 2, and 4, Humphrey discloses all the limitations above except the two-way communication link comprises a low bandwidth two-way communication link and a high bandwidth data broadcast link.

However, a two-way communication link comprises a low bandwidth two-way communication link and a high bandwidth data broadcast link are known in the art of communications. Yee teaches subscriber unit processes the request and send it to satellite communications system over a low bandwidth message link (56) (col.3 lines 42-50), and the satellite transmits the requested data information to subscriber over high bandwidth link (58) (col. 3, lines 20-22 and col. 3, lines 42-59). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to implement the techniques of Yee within the system of Humphrey in order to configure the subscriber unit to transmit data requests over a low bandwidth data channel to satellite communications network, use data messaging link 56 (i.e., low bandwidth) to send and receive small amount of data such notification, acknowledgement, etc, and broadcast large amount of data and the requested data information over high bandwidth.

Regarding claims 3 and 5-8, Humphrey in view of Yee discloses the system recited in claims 2 and 4, but fails to teach a particular communications frequency band. However, the Examiner takes Official Notice that the Ka-band and Ku-band are common in satellite communication, and further, well known to involve spot beams to

cover a selected area. It would have been obvious to one of ordinary skill in the art at the time of the invention for Yee et al to use the particular band appropriately, in order to timely implement the satellite system based on already existing technology and government policy in practice.

Regarding claims 12-16, Humphrey discloses the method recited in claim 11, wherein the step of transmitting the requests for data comprises transmitting the requests for data by way of satellite, terrestrial, and wireless communication link (page 4, sections 0044-0047).

Humphrey does not specifically disclose transmitting the requests for data by way of a low bandwidth communication link.

However, transmitting the requests for data by way of a low bandwidth communication link is known in the art of communications as evidenced by Yee. Yee teaches sending the request to satellite communications system over a low bandwidth message link (56) (col.3 lines 42-50). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the was made, to implement the technique of Yee within the system of Humphrey in order to configure the subscriber unit to transmit data requests over a low bandwidth data channel to satellite communications network, use data messaging link 56 (i.e., low bandwidth) for sending and receiving small amount of data such notification, acknowledgement, etc.

Regarding claim 17, Humphrey discloses all the limitations except wherein the step of transmitting the requested data comprises transmitting the data by way of a high bandwidth data broadcast link (col.3 lines 42-59).

Art Unit: 2681

However, transmitting the data by way of a high bandwidth data broadcast link is known in the art of communications. Yee teaches the satellite transmits the requested data information to subscriber over high bandwidth link (58) (col. 3, lines 20-22 and col. 3, lines 42-59). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to implement the techniques of Yee within the system of Humphrey in order to broadcast large amount of data and the requested data information over high bandwidth.

Regarding claims 19, 20, Humphrey discloses all the limitations except the step of obtaining the requested data at the at least one gateway using a user's request history to obtain the requested information.

However, the preceding limitation is known in the art of communications. Yee teaches the gateway comprises a processor that keeps track of data requests in controlling communication (col. 4 lines 19-22), and the gateway is in communication with a billing function to generate data related to specific subscriber unit usage, which reads on the step of obtaining the requested data at the at least one gateway comprises using a user's user profile to obtain the requested information (col. 3, line 65 to col. 4, line 58). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to implement the technique of Yee within the system of Humphrey in order that the same data information can be broadcast by multiple satellites over multiple high bandwidth downlink to cover the location of all addressed destination subscriber units.



***Allowable Subject Matter***

6. Claims 23-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is an examiner's statement of reasons for allowance: the prior art teaches transmitting requests data information in low bandwidth to satellite.

On the other hand, the Applicant teaches broadcasting the requested data at predetermined intervals to simulate real-time information broadcast. This limitation, in conjunction with all limitations of the independent and dependent claims, have not been disclosed, taught, or made obvious over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hassan et al. (US 5,914,942) teaches satellite communications system with dual mode bandwidth control.

Art Unit: 2681

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean A Gelin whose telephone number is (703) 305-4847. The examiner can normally be reached on 9:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (703) 305-4778. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

J. Gelin  
May 6, 2003

JEAN GELIN  
PATENT EXAMINER

*Jean Allard Gelin*